examinations, upon the coast and within the said territory, by the officers of the Coast Survey, and others of competent scientific ability and experience.

And the Society was adjourned.

Stated Meeting, March 6, 1868.

Present, ten members.

Dr. Wood, President, in the Chair.

Mr. John Welsh, a recently elected member, was introduced, and took his seat.

Mr. Batchelder, a member of a corresponding Society, was introduced.

Letters were read from Henry Barnard, Commissioner of Education, February, 1868; from the University at Lund, in Sweden, August, 1867, accompanying a donation for the Library, and soliciting an exchange of publications; from the Imperial Academy of Sciences, at Vienna, November 26, 1867, announcing a donation for the Library; and from the Hon. Charles O'Neill, House of Representatives, February 27, 1868, acknowledging the reception of the Society's memorial, recommending a scientific examination of the Territory of Alaska.

Donations for the Library were announced: From the Universities at Christiania, Norway, and at Lund, Sweden; from the Imperial Academy at Vienna; from Dr. F. C. Noll, Editor of the "Zoological Garden;" from Prof. Fr. Zantedeschi, Venice; from the Royal Astronomical Society of London; from the American Antiquarian Society; from Professor George W. Cook, Geologist of the State of New Jersey; from the Franklin Institute; the publisher of the Medical News; and from Mr. Edward Miller.

On motion, ordered that the University at Lund be placed on the List of Corresponding Societies, also be furnished with the Transactions from the present volume.

Professor Cresson announced in an eulogium, the decease of Sir David Brewster, who died February 10, 1868, aged 87.

The decease of Dr. Gibson, a member, was announced as having occurred at Savannah on the 2d instant, aged 82 years.

Mr. Edward Miller laid on the table a series of photographic representations of remarkable rocks on the line of the Eastern Division of the Union Pacific Railway, accompanied by the following explanatory memoir:

The "Mushroom Rock" is an extraordinary freak of nature in Kansas, in the valley of Alum, or, more probably, Elm Creek, for, in Western parlance, the latter is pronounced as if it had two syllables, and it is difficult to distinguish between the two words. It is near the line of the Union Pacific Railway, E. D., usually known as the Kansas Pacific Railway. It is 7 miles east of Fort Harker, formerly Fort Ellsworth, and is about 496 miles west of St. Louis.

The railway in question begins at the mouth of the Kansas River, at the Missouri State line, and it follows the valley of the Kansas and of its main fork, the Smoky Hill, to their extreme headwaters on the confines of Colorado, with the exception of the particular region in which these views were taken. The general course of the Kansas and Smoky Hill valleys is very direct, being nearly east and west; but, between Salina and Fort Harker, the stream makes a great detour to the south, and the railway cuts across the bend, saving a distance of from 16 to 20 miles, and encountering an undulating "cross-country" line, with three subordinate summits, and as many valleys, of which Alum or Elm Creek is one. All these flow southward into Smoky Hill.

On this cut-off line there is much bold and beautiful scenery. The tops of the bluffs are crowned with rocky scarps, which sometimes resemble long walls of regular masonry, and, at times, take the forms of ruined buildings. One which I propose to call Castle Thunder, would, in Europe, be taken by any casual traveller for an ancient castle, with towers and battlements shattered by time, but still a noble ruin.

The "Mushroom Rock" has a stem about 10 feet high, 6 feet in diameter at the top, and 8 feet at the bottom. The cap is an oval rock about 10 feet thick at the centre, and from 16

to 20 feet across. This is a hard, tabulated sand-rock of a dark color, with a shade of green in it, and apparently contains some lime. The stem is a dirty white sand-rock, very soft and friable. It is easily cut with a pocket-knife, and can be crumbled in the hands. There is a hole at the top of the stem, shown in the picture, through which a child might creep.

The rocks here lie nearly horizontal, and the two strata, forming the cap and stem, *are regularly in place* in the "Mushroom Rock." The valley in which it stands has been formed by the rush of water, which has left here and there small islands of the soft sand-rock, capped by portions of the hard stratum above it; and the running water first, and the rain, hail, and dust storms of the Plains afterwards, have eroded the lower stratum gradually, until at length the cap projected so far as to protect the stem like an umbrella.

There is danger that this strange monument of nature's slow and curious working, and which has so long resisted the elements, may perish in a most inglorious manner, unless measures are adopted for its protection. Almost every visitor is smitten with the American propensity for immortality, which he indulges by inscribing his name on the yielding stem with his jack-knife. *Mea culpa*, I confess to have done the same. It is by no means impossible that the "Mushroom Rock" will be thus whittled away, and the last Vandal may be caught in a trap when it falls.

A few hundred feet off there is another mushroom rock, taller than that shown in our picture, but not so striking in appearance, because the cap is smaller. There have been several others in the vicinity, I believe. On the left side of the picture the cap of one of them, which has fallen, may be seen, and there are others of a like character around.

I have only to add to this, upon the authority of Dr. Le Conte, that these strata belong to No. 1 Lower Cretaceous Group, according to the classification of Meek and Hayden.

To the same formation belongs the "Inscription Rock," and the figures upon it are inscribed on the same soft friable sandstone which forms the stem of the "Mushroom Rock." In the admirable series of five photographs accompanying this memoir, will be found a general view of this rock, and four views of different portions on a larger scale, showing the inscriptions, I will not call them hieroglyphics. While a very

large part of these are evidently Indian, and may have useful or curious significations, there are others mixed with them made by white men. Among the latter, I would indicate the five-pointed star in a rude circle.

This rock is 15 miles southeast of Fort Harker, and 492 miles west of St. Louis. There are many others, covered in like manner with rude aboriginal devices, in the West. It is to be hoped that all may be copied as faithfully as this. These may be, hereafter, very curious and valuable, as relics of a race which is fast fading away, a race so irreclaimable and so worthless, that it is difficult for the philanthropist to regret their departure.

Pending nominations Nos. 586, 587 and 588 were read.

And the Society was adjourned.

Stated Meeting, March 20, 1868.

Present, eight members.

Prof. CRESSON, Vice-President, in the Chair.

Donations for the Library were announced: from the Royal Prussian Academy of Sciences at Berlin; from the Geographical Society of Paris; from the Essex Institute at Salem; from the Trustees of the Peabody Museum; from John Alexander Ferris, A.M., San Francisco; from the United States Naval Observatory; from the Young Men's Library Association of Cincinnati; from the Editors of the Journal of Arts and Sciences; from the Academy of Natural Sciences at Philadelphia; from the Pennsylvania Institution for the Instruction of the Blind; and from P. B. Dyke.

Mr. P. E. Chase called the attention of the Society to an article in the last number of the American Journal of Arts and Sciences on the subject of revolving meteoric trains observed at Dartmouth College and Iowa City.

Mr. Marsh, in reference to the shooting stars of November, 1867, stated that he had received a letter from B. R. Lewis, Deputy U. S. Consul-General at Shanghai, from which he read the following abstracts from the logs of vessels stationed at that port: